

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Claims 1-22 are all the claims pending in the application. In response to the Office Action, Applicant respectfully submits that the claims define patentable subject matter.

I. Overview of the Office Action

Claims 1 and 11 remain rejected under 35 U.S.C. § 102(e) as being anticipated by DiFazio (U.S. Patent Application Publication No 2003/0063576). Claims 1, 2, 8, 11, 12, 16, and 17 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Scott et al. (U. S. Patent No. 6,154,486, hereafter “Scott”) in view of DiFazio. Claims 4, 5, 14, and 15 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Scott in view of DiFazio and further in view of Karlsson et al. (U.S. Patent Application Publication No. 2002/0057730, hereafter “Karlsson”). Claims 10 and 22 remain rejected under 35 U.S.C. § 103(a) as being unpatentable over Scott in view of DiFazio and further in view of Bhatooolaul (U.S. Patent Application Publication No. 2001/0046864, hereafter “Bhatooolaul”). Claims 3, 6, 7, 9, 13, and 18- 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant respectfully traverses the prior art rejections.

II. Preliminary Matters

The Examiner has rejected claim 8 as being unpatentable over Scott in view of DiFazio. However, claim 8 depends on claim 6, which is indicated by the Examiner as being allowable. Accordingly, claim 8 should be allowable as a matter of right. The Examiner is requested to clarify this discrepancy in the next Office Action and remove the rejection of claim 8.

III. Prior Art Rejections

A. Rejections Based on 35 U.S.C. § 102

In the previous Office Action dated December 10, 2008, the Examiner asserted that DiFazio teaches all of the elements of independent claim 1 and analogous independent claim 11.

In the Amendment filed on March 9, 2009, Applicant submitted that there is no teaching or suggestion in DiFazio that “a detection magnitude is evaluated on the basis of the estimated channel parameters and of a correlation between a signal received at the receiver system and the predetermined digital sequence”, as recited in the claims. Applicant argued that although the Examiner appears to read the claimed “detection magnitude” on the signal power 13 in FIG. 3 of DiFazio, it is clear from the depiction in FIG. 3 of DiFazio that the signal power is not evaluated on the basis of the noise estimation, since the output of the noise estimator (11) and the output of the signal power estimator (13) are compared and transmitted to the data estimation device 2. In other words, there is no input from the noise estimator to the signal power estimator in order to allow the signal power to be estimated on the basis of a noise estimation.

In response, the Examiner merely repeats the rejection and asserts:

DiFazio teaches a detection magnitude (i.e. the signal power) is evaluated on the basis of estimated channel parameters (see Figs. 2, 3, blocks 7, 12, 13 and paragraph 0027) and a correlation (see matched filter 12) between a signal received at the receiver system (see paragraph 0028) and the predetermined digital sequence (see the third input of matched filter 12 (i.e., the code for physical channel with TFCI)).²

² Page 2 of the Office Action.

Again, Applicant respectfully disagrees with the Examiner's position. DiFazio teaches that the signal estimator 13 of the burst detector 10 estimates the signal power by separating real and imaginary parts of the outputs of the matched filter 12 and calculating the power from those values (paragraph [0030]). DiFazio does not teach or suggest that "a detection magnitude is evaluated on the basis of the estimated channel parameters and of a correlation between a signal received at the receiver system and the predetermined digital sequence", as claimed. Further, although DiFazio appears to teach that the channel estimation device 7 provides channel information such as channel impulse responses to the burst detector (paragraph [0027]), DiFazio does not teach or suggest that this channel information is used to evaluate a detection magnitude.

Still further, Applicant respectfully submits that there is no teaching or suggestion in DiFazio of the element "channel parameters representing a statistical behaviour of the radio channel are estimated", as recited in independent claim 1 and analogously recited in independent claim 11.

The Examiner broadly cites paragraph [0027] of DiFazio as allegedly teaching this element of the claims. However, this cited portion of DiFazio merely teaches that a baseband signal is processed in timeslots with appropriate codes assigned to the receiver. The channel estimation device uses a training sequence in the baseband signal to provide channel information which is used by the data estimation device and the burst detector. Nowhere does DiFazio teach or suggest "channel parameters representing a statistical behaviour of the radio channel are estimated", nor does the Examiner address with any specificity how this claimed element reads on the cited reference.

For at least these reasons, Applicant respectfully submits that independent claims 1 and 11 should be allowable because the cited reference does not teach or suggest all of the elements

of the claims. Claims 2-10 and 12-22 should also be allowable at least by virtue of their dependency on independent claims 1 and 11.

B. A. Rejections Based on 35 U.S.C. § 103

In the previous rejection, the Examiner asserted that Scott teaches all of the elements of independent claims 1 and 11 except for the element “a detection magnitude is evaluated on the basis of the estimated channel parameters”, as recited in the claims. The Examiner thus relied on DiFazio to allegedly cure this conceded deficiency.

In the previous Amendment, Applicant submitted that there is no teaching or suggestion in Scott that “the detection magnitude is compared with an adaptive threshold to decide whether a signal burst is detected”, as claimed. Applicant submitted that although the Examiner cited column 41 lines 10-57 and specifically lines 42-44 of Scott as allegedly teaching “the detection magnitude is compared with an adaptive detection threshold to decide whether the signal burst is detected”, as recited in the claims, a close reading of this cited portion of Scott indicates no teaching of this aspect of the claims.

In response, the Examiner mere repeats the previous rejection.

Nevertheless, Applicant again submits that Scott has no relevance to the claimed invention. Scott teaches detecting four correlation peaks in test signal locations, where each signal location is connected to an individual threshold comparator, each connected to a threshold signal 1420. The threshold signal is dynamically varied in response to a measured background noise level. When the signal level at a test location exceeds the threshold signal level, a comparator changes state. If at least three of the four comparators changes state, a confirm signal indicates a detected preamble code.

Applicant respectfully submits that this has no relevance to the claimed invention. Nowhere does this cited portion (or any other portion) of Scott teach or suggest “the detection magnitude is compared with an adaptive threshold to decide whether a signal burst is detected”, as recited in claim 1 and analogously recited in claim 11.

Accordingly, Applicant respectfully submits that independent claims 1 and 11 should be allowable because the cited references, alone or in combination, do not teach or suggest all of the elements of the claims. Claims 2-10 and 12-22 should also be allowable at least by virtue of their dependency on independent claims 1 and 11.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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